

**REMARKS**

The Office Action dated May 17, 2010, has been received and carefully considered. The following remarks form a full and complete response thereto. Claims 1-18 and 20-30 are pending. Reconsideration and allowance are respectfully requested.

**Claim rejections under 35 U.S.C. § 103(a)**

Claims 1, 3, 5, 8-10, 13, 24-26 and 30 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent 4,455,359 to Pätzold in view of U.S. Patent 4,830,928 to Tamagawa. Applicants traverse the rejection and submit that the rejection is improper at least for the reasons set forth in Applicants' response filed February 12, 2010, and further because combining the teachings of Pätzold and Tamagawa would not result in the claimed subject matter.

Independent claim 1, from which claims 3, 5, 8-10, 13 and 24-26 depend directly or through an intervening claim, recites a security paper for producing value documents, including a creasable, foldable, multilayer substrate. The multilayer substrate has at least one paper layer laminated on both sides all over to plastic foil. The plastic foil is equipped with a security feature. The plastic foil has a thickness of 1 to 20  $\mu\text{m}$ . The paper layer has a weight of 50 to 100 g/m<sup>2</sup>.

Independent claim 30 defines a security paper for producing value documents having a creasable, foldable, multilayer substrate. The multilayer substrate has at least one paper layer having laminated plastic foil extruded onto both sides all over. The plastic foil is equipped with at least one security feature. The plastic foil has a thickness of 1 to 20  $\mu\text{m}$  and the at least one paper layer has a weight of 50 to 100 g/m<sup>2</sup>

As a result of the novel configurations claimed in claims 1 and 30, security papers are provided that have the feel and sound of paper, as far as possible (see paragraph 10 of the present application).

Tamagawa discloses a support for a photographic paper which is characterized by an improved surface smoothness. Abstract. Tamagawa teaches that both sides of a paper layer are coated with polyethylene layers (see col. 1 ll.11-13), the polyethylene having "a thickness of 15 to 40 microns per side." Col. 3 ll. 39-44. After such coating, a photosensitive layer is then applied on top of the plastic layer (see col. 4 ll. 13-15), leaving the photosensitive layer essentially unprotected against any kind of manipulation.

Pätzold relates to laminated tamper-proof cards such as a credit card having photographic information. Pätzold discloses, in its Background, cards having a photographic paper inlet welded between two clear foils by the application of pressure and temperature round the edges. Col. 1 ll. 16-39. Pätzold teaches to indissolubly attach the transparent foil to the whole surface of the photographic material so that the information carrier is no longer accessible without destruction thereof. Col. 1 ll. 51-60. The thickness of each of the two foils in Pätzold is from 15 to 250  $\mu\text{m}$ , preferably 50 to 200  $\mu\text{m}$ . Col. 4 ll. 61-65.

Applicants submit that applying the tamper-proof teachings of Pätzold to the photographic paper disclosed by Tamagawa would not result in the claimed subject matter. Rather, the resulting multilayer paper would comprise a paper layer coated on each side with a polyethylene film at least 15 microns thick, a photosensitive layer applied to at least one side of the coated paper, and, to protect the photosensitive layer, an additional clear foil at least 15 microns thick applied to each side. Thus, the result of combining Pätzold with Tamagawa is a paper coated on each side with a plastic foil, the plastic foil having an overall thickness of at least 30 microns.

In contrast, the plastic foil of the security paper recited in claims 1, 3, 5, 8-10, 13, 24-26 and 30 has a thickness of 1 to 20 microns. The claimed arrangement achieves creasable and foldable security papers that have the feel and sound of paper, as far as possible. The Office Action confirms (page 3, para. 2) that the thickness of the foil determines the stiffness of the document. According to the present claims, the

maximum thickness of the foil that still provides a paper-like document is 20 microns. In contrast, the document that would result from combining the teachings of Pätzold and Tamagawa as described in the Office Action would necessarily have a plastic foil with a minimum thickness of 30 microns. That is, the minimum thickness of the foil of the document resulting from the Pätzold/Tamagawa combination necessarily exceeds the maximum thickness of the present claims by at least 50% and would result in a stiff and card-like document which is not creasable or foldable and does not have the feel and sound of paper. Thus, the security papers recited in claims 1, 3, 5, 8-10, 13, 24-26 and 30 are not obvious in view of the combination of Pätzold and Tamagawa.

Applicants submit that the rejection is improper at least for at least the reasons set forth in Applicants' response filed February 12, 2010, and further because the combination of Pätzold and Tamagawa would not yield the claimed security papers as discussed above. Applicants request that the rejection of claims 1, 3, 5, 8-10, 13, 24-26 and 30 be withdrawn and that claims 1, 3, 5, 8-10, 13, 24-26 and 30 be allowed.

Claims 2, 4, 6, 7, 14-16, 20-22 and 27-29 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Pätzold in view of Tamagawa and further in view of U.S. Pat. 5,868,902 to Howland and further in view of U.S. Pat. 4,462,866 to Tooth and as evidenced by an article entitled "Paper, Its making, merchenting and usage" by Haylock. Applicants traverse the rejection because the additional references fail to remedy the deficiencies of Pätzold and Tamagawa as discussed above with regard to claim 1, from which claims 2, 4, 6, 7, 14-16, 20-22 and 27 depend directly or through intervening claims.

The deficiencies of Pätzold and Tamagawa as discussed above with regard to claim 1 similarly apply to claim 28 and claim 29, dependent thereto, which define methods for producing a creasable, foldable security paper for producing value documents. The methods include a step in which at least one paper layer is produced in a paper machine, the at least one paper layer having a weight of 50 to 100 g/m<sup>2</sup>. The methods also include a step in which plastic foil is extruded onto both surfaces of the

paper layer all over, the plastic foil being already equipped with at least one security feature or equipped therewith after application, the plastic foil having a thickness of 1 to 20  $\mu\text{m}$ .

Applicants submit that Tooth, Howland, and Haylock make no disclosure regarding thickness of plastic foil extruded or laminated to a paper layer. Therefore, for at least the reasons set forth above regarding claim 1 and those stated in the Applicants' response filed February 12, 2010, the rejection is improper and Applicants request that the rejection of claims 2, 4, 6, 7, 14-16, 20-22 and 27-29 be withdrawn.

Claims 11, 12, 17 and 18 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Pätzold and Tamagawa in view of U.S. Pat. Application Pub. US 2002/0022112 to Hoeppner. Applicants traverse the rejection because Hoeppner fails to remedy the deficiencies of Pätzold and Tamagawa as discussed above with regard to claim 1, from which claims 11, 12, 17 and 18 depend directly or through intervening claims. Applicants submit that Hoeppner makes no disclosure regarding thickness of plastic foil laminated to a paper layer. Therefore, for at least the reasons set forth above and those stated in Applicants' response filed February 12, 2010, the rejection is improper and Applicants request that the rejection be withdrawn, and claims 11, 12, 17 and 18 be allowed.

Also, apparently referring to claim 18, the Office alleged that "[a]bsent convincing evidence of unexpected properties derived therefrom, it would have been obvious to use any laminating adhesive, including the claimed water-soluble adhesive." Office Action at 11. Applicants submit that the Office has failed to state a *prima facie* rejection of claim 18 at least because the Office failed to provide any factual findings or rationale in support of this allegation. See MPEP § 2141 ("[o]ffice personnel must provide an explanation to support an obviousness rejection ... [c]learly setting forth findings of fact and the rationale(s)"). Applicants request (repeating their request in their February 12, 2010, response) that the Office substantiate the allegation or withdraw the rejection of claim 18 for at least this additional, independent reason.

Claim 23 was rejected under 35 U.S.C. § 103(a) as being obvious over Pätzold in view of Tamagawa and further in view of U.S. Pat. No. 3,489,643 to Hoffman. Claim 23 depends from independent claim 1 through intervening claim 7 and is patentable over the combination of Pätzold and Tamagawa for at least for the reasons given above with regard to claims 1 and 7 and because Hoffman fails to remedy the deficiencies of the combination of Pätzold and Tamagawa. Hoffman makes no disclosure regarding thickness of plastic foil laminated to a paper layer. For at least this reason and for the reasons set forth in Applicants' response filed February 12, 2010, the rejection of claim 23 is improper and Applicants request that the rejection be withdrawn.

In view of the foregoing, Applicants submit that all rejections and objections have satisfactorily been addressed. Accordingly, Applicants submit that this application is in condition for allowance and request that it be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

Respectfully submitted,

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